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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,270	04/22/2004	Richard B. Evans	05165.1560	6458

7590 06/28/2006

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EXAMINER
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CHEN, VIVIAN

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/829,270	EVANS, RICHARD B.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vivian Chen	1773	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 16, 17 and 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/28/06</u> . | 6) <input type="checkbox"/> Other: _____  |

***Restriction/Election***

1. Applicant's election with traverse of Group I in the reply filed on 4/17/2006 is acknowledged. The traversal is on the ground(s) that the search would not constitute an undue burden. This is not found persuasive because the while there may exist some overlap of subject matter, Group II contains significant feature not claimed in Group I and therefore the search would constitute an undue burden.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 16-17, 21-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4/17/2006.

3. The election of species requirement in the previous Office Action has been withdrawn.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6, 15, 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 6, 15, 20 are vague and indefinite because it is unclear what constitutes “substantially” transparent, as in comparison with being “transparent” per se.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-9, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over THORFINNSEN (US 4,876,153), in view of KATSURA ET AL (US 5,667,889).

THORFINNSEN discloses a backed ply material comprising a ply layer comprising resin and graphite fibers coated upon a removable silicone-coated polyester release film. (column 1; line 8-35, col. 4)

KATSURA ET AL discloses silicone-coated polyester (e.g., polyethylene terephthalate) release films, wherein the films can be transparent, have a typical thickness of 5-350 microns, and wherein the films are biaxially oriented and heat-set. (line 65, col. 1 to line 17, col. 2; line 32, col. 2 to line 20, col. 3; line 1-17, col. 7; line 6-15, col. 8)

It would have been obvious to one of ordinary skill in the art at the time the invention was to use a known silicone-coated polyester release film as disclosed in KATSURA ET AL as

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the removable backing material for the ply material of THORFINNSON. It would have been obvious to make release films recyclable (claim 13) in order to minimize waste generation.

8. Claims 14-15, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over THORFINNSON (US 4,876,153), in view of KATSURA ET AL (US 5,667,889), as applied in claim 1, and further in view of ROY (US 4,319,750).

ROY discloses that it is well known in the art to supply ply materials used in the production of fiber-reinforced composites in the form of wound spools comprising the ply material backed by a strippable backing layer. (Figure 11, line 20-45, col. 9)

It would have been obvious to one of ordinary skill in the art at the time the invention was to wind the backed ply material of THORFINNSON into a spool form using conventional film winding apparatus in order to produce rolls suitable for use for conventional lay-up operations for composites.

9. Claims 1, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WESTRE ET AL (US 5,866,272), in view of THORFINNSON (US 4,876,153).

WESTRE ET AL discloses hybrid composites comprising plies of titanium foil and resin-impregnated graphite (line 60-68, col. 4; line 45-56, col. 5; line 30-42, col. 6)

THORFINNSON discloses that it is well known in the art to apply a strippable backing material comprising a silicone-coated polyester film to resin-impregnated graphite fibers in order to facilitate handling and prevent undesirable sticking. (column 1; line 8-35, col. 4)

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KATSURA ET AL discloses silicone-coated polyester (e.g., polyethylene terephthalate) release films, wherein the films can be transparent, have a typical thickness of 5-350 microns, and wherein the films are biaxially oriented and heat-set. (line 65, col. 1 to line 17, col. 2; line 32, col. 2 to line 20, col. 3; line 1-17, col. 7; line 6-15, col. 8)

It would have been obvious to one of ordinary skill in the art at the time the invention was to apply a backing film to combined plies of titanium foil and resin-impregnated graphite in order to simplify assembly and forming of hybrid composite structures.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 23, 2006



Vivian Chen  
Primary Examiner  
Art Unit 1773